

**PCT**  
**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PE606	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB 03/04139	International filing date (day/month/year) 18.09.2003	Priority date (day/month/year) 19.09.2002
International Patent Classification (IPC) or both national classification and IPC E02D29/02		
Applicant OFFICINE MACCAFERRI S.P.A. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
  
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
  - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.
  
3. This report contains indications relating to the following items:
  - I  Basis of the opinion
  - II  Priority
  - III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV  Lack of unity of invention
  - V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI  Certain documents cited
  - VII  Certain defects in the international application
  - VIII  Certain observations on the international application

Date of submission of the demand 13.04.2004	Date of completion of this report 08.10.2004
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INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

International application No. PCT/IB 03/04139

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-5 as originally filed

**Claims, Numbers**

1-10 received on 19.04.2004 with letter of 13.04.2004

**Drawings, Sheets**

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/IB 03/04139**

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IB 03/04139

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. State of the art**

1.1 The following documents are considered relevant:

D1: WO 96 17134 A

D2: WO 00 31350 A

D3: WO 96 33314 A

D4: DE 44 09 538 A

1.2 D1 is considered the most pertinent state of the art document.

**2. Inventive Step - Article 33(3) PCT**

2.1 The international application does not comply with Rule 33(3) PCT because the subject-matter of claim 1 does not involve an inventive step.

2.2 The subject matter of claim 1 differs from the disclosure of D1 (cf. page 9, paragraph 3; page 15, paragraph 4; figs. 1, 4, 5) only in that

(a) a lower wall and an upper wall each comprising at least one panel of double-twist hexagonal-mesh wire netting.

2.3 This feature, however, is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to provide an alternate retaining wall construction.

2.4 The subject matter of claim 1 would also not appear to involve an inventive step with respect to the disclosure of D2 to D3.

**2.5 *re dependent claims 2-10***

2.6 The above dependent claims do not contain any additional features which involve an inventive step by themselves. These additional features are rendered obvious by the cited prior art. Otherwise, the skilled man would employ them, if required, on the basis of his expert knowledge and without demonstrating an inventive step.

Thus, even a combination of the features set out in these claims with the features of any independent claim would not lead to subject-matter involving an inventive step.

**3. Industrial Applicability - Article 33(4) PCT**

3.1 The subject matter of all claims is industrially applicable.

**4. Certain observations on the international application:**

4.1 Although directed to an apparatus, claim 7 comprises features describing a method step to its production (" ... connection ... is *factory-made*, the element *being stowed and/ or transported* to the place of use ... front wall *is placed* on the lower wall...") rather than a structural detail of the claimed apparatus, thus rendering the subject matter of this claim unclear.

The same objection applies to claims 8 and 9.

CLAIMS

1. An improved element for forming ground covering, restraining and reinforcing structures, comprising a front wall (F), a lower wall (L) and an upper wall (U), characterised in that the front wall (F) is connected in an articulated manner at one of its end edges (3, 4) at least, to an edge of the lower wall (L) or the upper wall (U).
2. An improved element as claimed in claim 1, characterised in that the front wall (F) is connected in an articulated manner at two of its opposite end edges (3, 4) to an edge of the lower wall (L) and an edge of the upper wall (U) respectively.
3. An improved element as claimed in claim 1 or 2, characterised in that the upper wall (U) has a height substantially corresponding to or lower than the height of the front wall (F).
4. An improved element as claimed in one of claims 1 to 3, characterised in that it comprises bracket means (8) adapted to support, in use, the front wall (F) in an inclined configuration with respect to the lower wall (L).
5. An improved element as claimed in claim 4, characterised in that the bracket means comprise at least one triangular bracket (8) with a side secured in an articulated manner to the front wall (F).
6. An improved element as claimed in any one of the preceding claims, characterised in that a layer of geosynthetic material or bio-matting is secured to the front wall.
7. An improved element as claimed in any one of the preceding claims, characterised in that the front wall (F) comprises at

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ART 34 AMDT

least one panel (2) of electrically welded wire netting, the lower (L) and upper (U) walls each comprising at least one panel (5, 6, 6a, 6b) of double-twist hexagonal-mesh wire netting.

8. An improved element as claimed in any one of the preceding claims, characterised in that the articulated connection of the front wall (F) to the lower wall (L) and/or the upper wall (U) is factory-made, the element being stowed and/or transported to the place of use in a flat configuration in which the front wall (F) is placed on the lower wall (L) and/or the upper wall (U).

9. An improved element as claimed in claim 8, characterised in that the front wall (F) is connected in an articulated manner to both the lower wall (L) and the upper wall (U), the element (1) being stowed and/or transported to the place of use in a flat configuration in which the front wall (F) and the upper wall (U) are both placed on the lower wall (L).

10. An improved element as claimed in claim 8, characterised in that the front wall (F) is connected in an articulated manner to both the lower wall (L) and the upper wall (U), the element (1) being stowed and/or transported to the place of use in a flat configuration in which the front wall (F), the upper wall (U) and the lower wall (L) are folded and placed at least partially on top of one another in a zigzag configuration.

11. An improved element as claimed in any one of the preceding claims, characterised in that the upper wall (U) comprises at least two panels (6a, 6b) connected in an articulated manner along a common edge (20) substantially parallel to the edges of the front wall (F).

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